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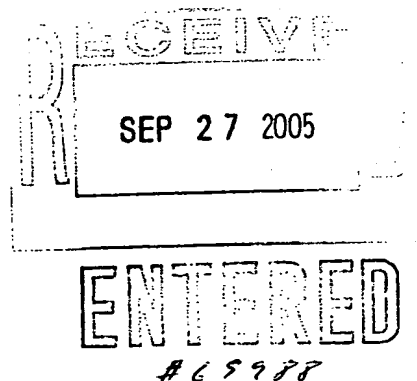
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Date of mailing (<i>day/month/year</i>) 22 September 2005 (22.09.2005)		
Applicant's or agent's file reference 0180.0064		IMPORTANT NOTICE
International application No. PCT/US2004/040368	International filing date (<i>day/month/year</i>) 01 December 2004 (01.12.2004)	
		Priority date (<i>day/month/year</i>) 03 December 2003 (03.12.2003)
Applicant THE REGENTS OF THE UNIVERSITY OF CALIFORNIA et al		

The International Bureau transmits herewith the following documents:

- ☒ copy of the international application as published by the International Bureau on 22 September 2005 (22.09.2005) under No. WO 2005/086627
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To:

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P.O. Box 34385
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Date of mailing (day/month/year)

09 March 2006 (09.03.2006)

Applicant's or agent's file reference

58086-224023

IMPORTANT NOTICE

International application No.

PCT/US2004/040368

International filing date (day/month/year)

01 December 2004 (01.12.2004)

Priority date (day/month/year)

03 December 2003 (03.12.2003)

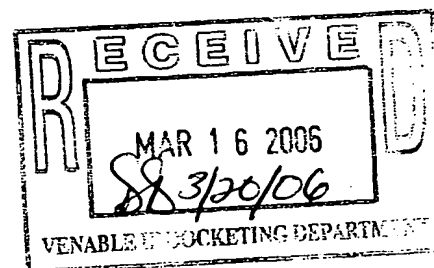
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(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number
WO 2005/086627 A3

(51) International Patent Classification: **H01L 33/00, H04N 15/00**

(21) International Application Number:
PCT/US2004/040368

(22) International Filing Date:
1 December 2004 (01.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/527,041 3 December 2003 (03.12.2003) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

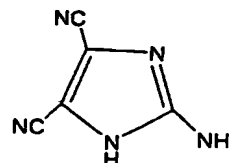
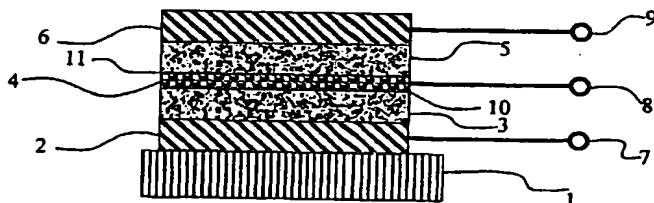
Published:

— with international search report

(88) Date of publication of the international search report:
9 March 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **THREE-TERMINAL ELECTRICAL BISTABLE DEVICES**



(57) Abstract: A three terminal electrical bistable device that includes a tri-layer composed of an electrically conductive mixed layer sandwiched between two layers of low conductivity organic material that is interposed between a top electrode and a bottom electrode. The conducting mixed layer serves as the middle electrode. The device includes two memory cells composed of electrode/organic layer/mixed layer, where the interfaces between the electrically conductive mixed layer and the low conductivity organic layer exhibit bistable behavior.

WO 2005/086627 A3

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/40368

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01L 33/00; H04N 15/00

US CL : 257/88; 345/97, 81, 204, 206

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 257/88; 345/97, 81, 204, 206

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,600,473 (Kobayashi et al.) 29 July 2003 (29.07.2003) figs. 1 - 6; column 6, lines 40 - 67; column 7, lines 49 - 57; column 8, lines 18 - 29 and lines 41 - 64; column 12, lines 34 - 67; column 13, lines 1 - 65; column 15, lines 6 - 67)	1 - 16
Y	US 4,507,672 (Potember et al.) 26 March 1985 (26.03.1985) fig. 1.	1 - 16
Y	US 2002/0031602 A1 (Zhang) 14 March 2002 (14.03.2002); fig. 1, paragraphs [0010], [0028], [0062] and [0069]	1 - 11



Further documents are listed in the continuation of Box C.



See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

20 October 2005 (20.10.2005)

Date of mailing of the international search report

08 NOV 2005

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